02/05

#2

#2

RAW SEQUENCE LISTING   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:53

             Input Set : A:\00-94.SEQ.txt
             Output Set: N:\CRF3\01292002\J038241.raw

P.S

```
      3 <110> APPLICANT: Conklin, Darrell C.
      4        Gao, Zeren
      5        Lofton-Day, Catherine E.
      6        Whitmore, Theodore E.
      8 <120> TITLE OF INVENTION: SECRETED ALPHA-HELICAL PROTEIN ZLMDA24
     11 <130> FILE REFERENCE: 00-94
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/038,241
C--> 13 <141> CURRENT FILING DATE: 2001-10-19
     13 <150> PRIOR APPLICATION NUMBER: US 60/242,023
     14 <151> PRIOR FILING DATE: 2000-10-20
     16 <160> NUMBER OF SEQ ID NOS: 25
     18 <170> SOFTWARE: FastSEQ for Windows Version 3.0
```

ENTERED

```
     20 <210> SEQ ID NO: 1
     21 <211> LENGTH: 1041
     22 <212> TYPE: DNA
     23 <213> ORGANISM: Homo sapiens
     25 <220> FEATURE:
     26 <221> NAME/KEY: CDS
     27 <222> LOCATION: (205)...(966)
     29 <400> SEQUENCE: 1
     30  ctgagaacac cagaggactg gcagttggga gcctgatgga ggacaagtag ggcctcgagg     60
     31  acaggtgcgt gacagaagca caggaaaaaa aagaaaaatg aagaaataaa aacacgagtt    120
     32  catcagtaaa gaggtacccct ggcagcataa atattatgat aagctaaaag ctggaatcat   180
     33  ctggaaaaat aaataagact cctc atg tcc ttt tcg gtc cat aac cag aag        231
     34                           Met Ser Phe Ser Val His Asn Gln Lys
     35                            1               5
     37  ggc agc aaa agg cct ttg cca ctg gaa cct ctt ctt ttt ctc caa gtc     279
     38  Gly Ser Lys Arg Pro Leu Pro Leu Glu Pro Leu Leu Phe Leu Gln Val
     39   10              15                  20                  25
     41  cca cgt agc aat tac ctg cac ttt caa gaa gag aaa caa cga cta cac    327
     43  Pro Arg Ser Asn Tyr Leu His Phe Gln Glu Glu Lys Gln Arg Leu His
     44                  30                  35                  40
     46  cta aag aaa ttc ctt ctt gat agg atg ttt cta gtg gcc aag ata caa    375
     47  Leu Lys Lys Phe Leu Leu Asp Arg Met Phe Leu Val Ala Lys Ile Gln
     48                  45                  50                  55
     50  gca aat gta gaa aga aaa gat gtt gct gac tac tat gaa caa atg ttt    423
     51  Ala Asn Val Glu Arg Lys Asp Val Ala Asp Tyr Tyr Glu Gln Met Phe
     52              60                  65                  70
     54  cag tca gtt ttg aaa cat cac cta gga gaa gca gtg aca gga ttg ctg    471
     55  Gln Ser Val Leu Lys His His Leu Gly Glu Ala Val Thr Gly Leu Leu
     56          75                  80                  85
     58  ctc atc tat ccc act tcc att ctg cat atc ctc gag tcc tcc agc gac    519
     59  Leu Ile Tyr Pro Thr Ser Ile Leu His Ile Leu Glu Ser Ser Ser Asp
```

RAW SEQUENCE LISTING   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:53

Input Set : A:\00-94.SEQ.txt
Output Set: N:\CRF3\01292002\J038241.raw

```
60   90                    95                   100                  105
62   act ctc tac aaa gtt ctt tta gat tat att ggc cat gtc aaa gat gaa        567
63   Thr Leu Tyr Lys Val Leu Leu Asp Tyr Ile Gly His Val Lys Asp Glu
64                     110                  115                  120
66   aca gta ttt ttt att caa caa atg aaa att ata gtc att tct cat aac        615
67   Thr Val Phe Phe Ile Gln Gln Met Lys Ile Ile Val Ile Ser His Asn
68                     125                  130                  135
70   att cca atg agg ctt ttt atg caa tgg cat gtt tca gtg ata aaa gtt        663
71   Ile Pro Met Arg Leu Phe Met Gln Trp His Val Ser Val Ile Lys Val
72           140                  145                  150
74   cca gtt atg tat ctc gac gat gtg aca cag tca cag tcc cta aag gag        711
75   Pro Val Met Tyr Leu Asp Asp Val Thr Gln Ser Gln Ser Leu Lys Glu
76           155                  160                  165
78   gtc atc aca gat ttt ctc aca caa act cat aaa ctg tca ctc tac ctt        759
79   Val Ile Thr Asp Phe Leu Thr Gln Thr His Lys Leu Ser Leu Tyr Leu
80   170                  175                  180                  185
82   tgc cag act atg aaa gta ggc act aaa gga cca ggc gat aac tta cac        807
83   Cys Gln Thr Met Lys Val Gly Thr Lys Gly Pro Gly Asp Asn Leu His
84                     190                  195                  200
86   caa gtt gca cct gac cta ctc ctc cca gaa caa atc ata aag tac ttg        855
87   Gln Val Ala Pro Asp Leu Leu Leu Pro Glu Gln Ile Ile Lys Tyr Leu
88           205                  210                  215
90   tgc aaa tcc gaa gaa ttc atg gac ccg gca aca ttt ata aac atg tat        903
91   Cys Lys Ser Glu Glu Phe Met Asp Pro Ala Thr Phe Ile Asn Met Tyr
92           220                  225                  230
94   aat aga ccc ata cac atc act ctg gat tct gag gtg gta tgg cct gct        951
95   Asn Arg Pro Ile His Ile Thr Leu Asp Ser Glu Val Val Trp Pro Ala
96           235                  240                  245
98   cct tca cgt ttc tag gattgagagg gataatgtgc ccatgtctct taaggagttt      1006
99   Pro Ser Arg Phe   *
100  250
102   gtgctactta aataaaaaaa acatttttaa agtta                             1041
104 <210> SEQ ID NO: 2
105 <211> LENGTH: 253
106 <212> TYPE: PRT
107 <213> ORGANISM: Human
109 <400> SEQUENCE: 2
110  Met Ser Phe Ser Val His Asn Gln Lys Gly Ser Lys Arg Pro Leu Pro
111  1                 5                   10                  15
112  Leu Glu Pro Leu Leu Phe Leu Gln Val Pro Arg Ser Asn Tyr Leu His
113            20                  25                  30
114  Phe Gln Glu Glu Lys Gln Arg Leu His Leu Lys Lys Phe Leu Leu Asp
115            35                  40                  45
116  Arg Met Phe Leu Val Ala Lys Ile Gln Ala Asn Val Glu Arg Lys Asp
117       50                  55                  60
118  Val Ala Asp Tyr Tyr Glu Gln Met Phe Gln Ser Val Leu Lys His His
119  65                  70                  75                  80
120  Leu Gly Glu Ala Val Thr Gly Leu Leu Leu Ile Tyr Pro Thr Ser Ile
121                 85                  90                  95
```

RAW SEQUENCE LISTING   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:53

Input Set : A:\00-94.SEQ.txt
Output Set: N:\CRF3\01292002\J038241.raw

```
122  Leu His Ile Leu Glu Ser Ser Ser Asp Thr Leu Tyr Lys Val Leu Leu
123              100             105             110
124  Asp Tyr Ile Gly His Val Lys Asp Glu Thr Val Phe Phe Ile Gln Gln
125          115             120             125
126  Met Lys Ile Ile Val Ile Ser His Asn Ile Pro Met Arg Leu Phe Met
127      130             135             140
129  Gln Trp His Val Ser Val Ile Lys Val Pro Val Met Tyr Leu Asp Asp
130  145             150             155                 160
131  Val Thr Gln Ser Gln Ser Leu Lys Glu Val Ile Thr Asp Phe Leu Thr
132              165             170             175
133  Gln Thr His Lys Leu Ser Leu Tyr Leu Cys Gln Thr Met Lys Val Gly
134              180             185             190
135  Thr Lys Gly Pro Gly Asp Asn Leu His Gln Val Ala Pro Asp Leu Leu
136          195             200             205
137  Leu Pro Glu Gln Ile Ile Lys Tyr Leu Cys Lys Ser Glu Glu Phe Met
138      210             215             220
139  Asp Pro Ala Thr Phe Ile Asn Met Tyr Asn Arg Pro Ile His Ile Thr
140  225             230             235                 240
141  Leu Asp Ser Glu Val Val Trp Pro Ala Pro Ser Arg Phe
142              245             250
144  <210> SEQ ID NO: 3
145  <211> LENGTH: 1056
146  <212> TYPE: DNA
147  <213> ORGANISM: Mus musculus
149  <220> FEATURE:
150  <221> NAME/KEY: CDS
151  <222> LOCATION: (106)...(867)
153  <400> SEQUENCE: 3
154  gcagaggtca agccaagagg acctcagacc tcaaagacag aaataaaaat aagaattcac      60
155  taccattgag acttgtaatc atctaaaaaa gaaataagat tcatc atg tct ttc atg     117
156                                                    Met Ser Phe Met
157                                                      1
159  gtc cat aat cgg aag ggc agc aaa aag caa ttt caa gtg gat cct ctt     165
160  Val His Asn Arg Lys Gly Ser Lys Lys Gln Phe Gln Val Asp Pro Leu
161    5                  10                  15                  20
163  ctt ctg ccc aag gtt cct cgt acc aat tac ctg cac ctt cag gaa gag     213
164  Leu Leu Pro Lys Val Pro Arg Thr Asn Tyr Leu His Leu Gln Glu Glu
165                  25                  30                  35
167  aag cac aga cta cag cta aag aaa ttc ctc ctt cac agg atg ttt cta     261
168  Lys His Arg Leu Gln Leu Lys Lys Phe Leu Leu His Arg Met Phe Leu
169              40                  45                  50
171  gtg ggc tac ata caa ggc aac acg gag aaa aag gac atc tct gag tac     309
172  Val Gly Tyr Ile Gln Gly Asn Thr Glu Lys Lys Asp Ile Ser Glu Tyr
173          55                  60                  65
175  tat gag caa ctg ttt cag tca att ctg aaa cat cat tta ggc gaa tca     357
176  Tyr Glu Gln Leu Phe Gln Ser Ile Leu Lys His His Leu Gly Glu Ser
177          70                  75                  80
179  gtg aca ggt ctc atg ctc gta tac cca agt act ttt ctg cac att ctt     405
180  Val Thr Gly Leu Met Leu Val Tyr Pro Ser Thr Phe Leu His Ile Leu
```

RAW SEQUENCE LISTING   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:53

Input Set : A:\00-94.SEQ.txt
Output Set: N:\CRF3\01292002\J038241.raw

```
181    85                      90                      95                     100
183  gag agt tcc aat ggc aca ctc ttc cgg att ctt cta gat tat gtt gcc        453
184  Glu Ser Ser Asn Gly Thr Leu Phe Arg Ile Leu Leu Asp Tyr Val Ala
185              105                     110                     115
187  cat gaa aag agt gaa aca gaa ttt atg ctc caa aac atg aaa atc gtt        501
188  His Glu Lys Ser Glu Thr Glu Phe Met Leu Gln Asn Met Lys Ile Val
189              120                     125                     130
191  gtt gct tct cac aac atc ccc acg agg ctg ttc atg cag tgg cat atc        549
192  Val Ala Ser His Asn Ile Pro Thr Arg Leu Phe Met Gln Trp His Ile
193              135                     140                     145
195  tct gca atc aaa gtc ccc gtt ttg tac cta gat gac gaa tca cag tct        597
196  Ser Ala Ile Lys Val Pro Val Leu Tyr Leu Asp Asp Glu Ser Gln Ser
197         150                     155                     160
199  ccg tct ata gag gaa gtc acc aca gaa ttc ctc acc atg act cac aaa        645
200  Pro Ser Ile Glu Glu Val Thr Thr Glu Phe Leu Thr Met Thr His Lys
201  165                     170                     175                     180
203  ctg gca ctc caa ctt tac aag aca gtg aaa ttg ggc gcg aaa ggt cca        693
204  Leu Ala Leu Gln Leu Tyr Lys Thr Val Lys Leu Gly Ala Lys Gly Pro
205              185                     190                     195
207  ggt gac aac tta cac caa ctt gcc cct gaa ctc att ctc cca gaa caa        741
208  Gly Asp Asn Leu His Gln Leu Ala Pro Glu Leu Ile Leu Pro Glu Gln
209              200                     205                     210
211  att atc aag tat tta tgc aaa gct gaa gaa ttc atg gac cca gcg tct        789
212  Ile Ile Lys Tyr Leu Cys Lys Ala Glu Glu Phe Met Asp Pro Ala Ser
213              215                     220                     225
215  ttc ttg agc atg tat aac aga ccc ata cac gtt acc ctg gat tcc gat        837
216  Phe Leu Ser Met Tyr Asn Arg Pro Ile His Val Thr Leu Asp Ser Asp
217         230                     235                     240
219  att gtg tgg cca gct cct tcc cgt ttc tag aatggggaga gttgatttgg          887
220  Ile Val Trp Pro Ala Pro Ser Arg Phe  *
221  245                     250
223  agaggatgtc tacaacattc agaagcattg aagatggcac cagagcagga gggtgaaaga      947
224  acgcatgttc agccaggcat agaacaggag ccaggaaggg gacaacacca taaattcctg     1007
225  aatttctttg tgttttaggc actaaacata ataaatttct taagactga                1056
227 <210> SEQ ID NO: 4
228 <211> LENGTH: 253
229 <212> TYPE: PRT
230 <213> ORGANISM: Mus musculus
232 <400> SEQUENCE: 4
233  Met Ser Phe Met Val His Asn Arg Lys Gly Ser Lys Lys Gln Phe Gln
234  1                   5                       10                      15
235  Val Asp Pro Leu Leu Leu Pro Lys Val Pro Arg Thr Asn Tyr Leu His
236              20                      25                      30
237  Leu Gln Glu Glu Lys His Arg Leu Gln Leu Lys Lys Phe Leu Leu His
238         35                      40                      45
239  Arg Met Phe Leu Val Gly Tyr Ile Gln Gly Asn Thr Glu Lys Lys Asp
240      50                      55                      60
241  Ile Ser Glu Tyr Tyr Glu Gln Leu Phe Gln Ser Ile Leu Lys His His
242  65                      70                      75                      80
```

RAW SEQUENCE LISTING   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:53

Input Set : A:\00-94.SEQ.txt
Output Set: N:\CRF3\01292002\J038241.raw

```
243   Leu Gly Glu Ser Val Thr Gly Leu Met Leu Val Tyr Pro Ser Thr Phe
244                   85                  90                  95
245   Leu His Ile Leu Glu Ser Ser Asn Gly Thr Leu Phe Arg Ile Leu Leu
246               100             105             110
247   Asp Tyr Val Ala His Glu Lys Ser Glu Thr Glu Phe Met Leu Gln Asn
248           115             120             125
249   Met Lys Ile Val Val Ala Ser His Asn Ile Pro Thr Arg Leu Phe Met
250       130             135             140
251   Gln Trp His Ile Ser Ala Ile Lys Val Pro Val Leu Tyr Leu Asp Asp
252   145             150             155             160
253   Glu Ser Gln Ser Pro Ser Ile Glu Glu Val Thr Thr Glu Phe Leu Thr
254               165             170             175
255   Met Thr His Lys Leu Ala Leu Gln Leu Tyr Lys Thr Val Lys Leu Gly
256               180             185             190
258   Ala Lys Gly Pro Gly Asp Asn Leu His Gln Leu Ala Pro Glu Leu Ile
259           195             200             205
260   Leu Pro Glu Gln Ile Ile Lys Tyr Leu Cys Lys Ala Glu Glu Phe Met
261       210             215             220
262   Asp Pro Ala Ser Phe Leu Ser Met Tyr Asn Arg Pro Ile His Val Thr
263   225             230             235             240
264   Leu Asp Ser Asp Ile Val Trp Pro Ala Pro Ser Arg Phe
265               245             250
267   <210> SEQ ID NO: 5
268   <211> LENGTH: 759
269   <212> TYPE: DNA
270   <213> ORGANISM: Artificial Sequence
272   <220> FEATURE:
273   <223> OTHER INFORMATION: Degenerate polynuclotide sequence of human zlmda24
274         shown in SEQ ID NO:2
276   <221> NAME/KEY: misc_feature
277   <222> LOCATION: (1)...(759)
278   <223> OTHER INFORMATION: n = A,T,C or G
280   <400> SEQUENCE: 5
```

```
W--> 281   atgwsnttyw sngtncayaa ycaraarggn wsnaarmgnc cnytnccnyt ngarccnytn     60
W--> 282   ytnttyytnc argtnccnmg nwsnaaytay ytncayttyc argargaraa rcarmgnytn    120
W--> 283   cayytnaara arttyytnyt ngaymgnatg ttyytngtng cnaarathca rgcnaaygtn    180
W--> 284   garmgnaarg aygtngcnga ytaytaygar caratgttyc arwsngtnyt naarcaycay    240
W--> 285   ytnggngarg cngtnacngg nytnytnytn athtayccna cnwsnathyt ncayathytn    300
W--> 286   garwsnwsnw sngayacnyt ntayaargtn ytnytngayt ayathggnca ygtnaargay    360
W--> 287   garacngtnt tyttyathca rcaratgaar athathgtna thwsncayaa yathccnatg    420
W--> 288   mgnytnttya tgcartggca ygtnwsngtn athaargtnw sngtnatgta yytngaygay    480
W--> 289   gtnacncarw sncarwsnyt naargargtn athacngayt tyytnacnca racncayaar    540
W--> 290   ytnwsnytnt ayytntgyca racnatgaar gtnggnacna arggnccngg ngayaayytn    600
W--> 291   caycargtng cnccngayyt nytnytnccn garcaratha thaartayyt ntgyaarwsn    660
W--> 292   gargarttya tggayccngc nacnttyath aayatgtaya aymgnccnat hcayathacn    720
W--> 293   ytngaywsng argtngtntg gccngcnccn wsnmgntty                           759
```

```
295   <210> SEQ ID NO: 6
296   <211> LENGTH: 759
297   <212> TYPE: DNA
```

Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY   DATE: 01/29/2002
PATENT APPLICATION: US/10/038,241   TIME: 11:58:54

Input Set : A:\00-94.SEQ.txt
Output Set: N:\CRF3\01292002\J038241.raw

```
L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:284 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:285 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:289 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:290 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:291 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:309 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:311 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:312 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:313 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:315 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:316 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:317 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:318 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:321 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
```